APX 1500

SINGLE-BAND P25 MOBILE RADIO

P25 CONNECTIVITY. EXCEPTIONAL PRICE.

Your city infrastructure represents a large investment and its users depend on that investment every day. Why not protect it by giving your team the tools they need to operate and maintain it efficiently? Equip them with the affordable APX™ 1500 P25 mobile radio so they can get work done.

The APX 1500 mobile is designed to provide reliable P25 radio communication at an affordable price while standing up to the riggers of every day work. The rugged simplicity of the O2 control head includes an easy to read color display and a built-in 7.5 watt speaker for efficient and confident communication. P25 radio capability enables seamless interoperability with first responders and other P25 radio users.

Communicate with ease and confidence at an affordable price on the APX 1500 mobile radio.

MOTOROLA SOLUTIONS

GREAT VALUE

DO MORE, DON'T PAY MORE

Just because you have a limited budget doesn't mean you have to limit your communication. The APX 1500 gives you dependable voice and data communication, P25 collaboration and all the features you need to connect your team - all at a great price.

RUGGED AND RELIABLE

RESPOND WITH CONFIDENCE

The APX 1500 is purpose-built for those who get things done. Get efficient and confident communication with the rugged simplicity of an oversized knob, easy-to-read color screen and a loud high-density speaker.

P25 COLLABORATION

COLLABORATE SEAMLESSLY

Although you are out of the office, you still need to communicate with others to get the job done. As a P25 mobile radio, the APX 1500 allows you to seamlessly collaborate with other P25 radio uses in other departments and organizations.

DEVICE MANAGEMENT SERVICES

ALL THE SUPPORT YOU NEED

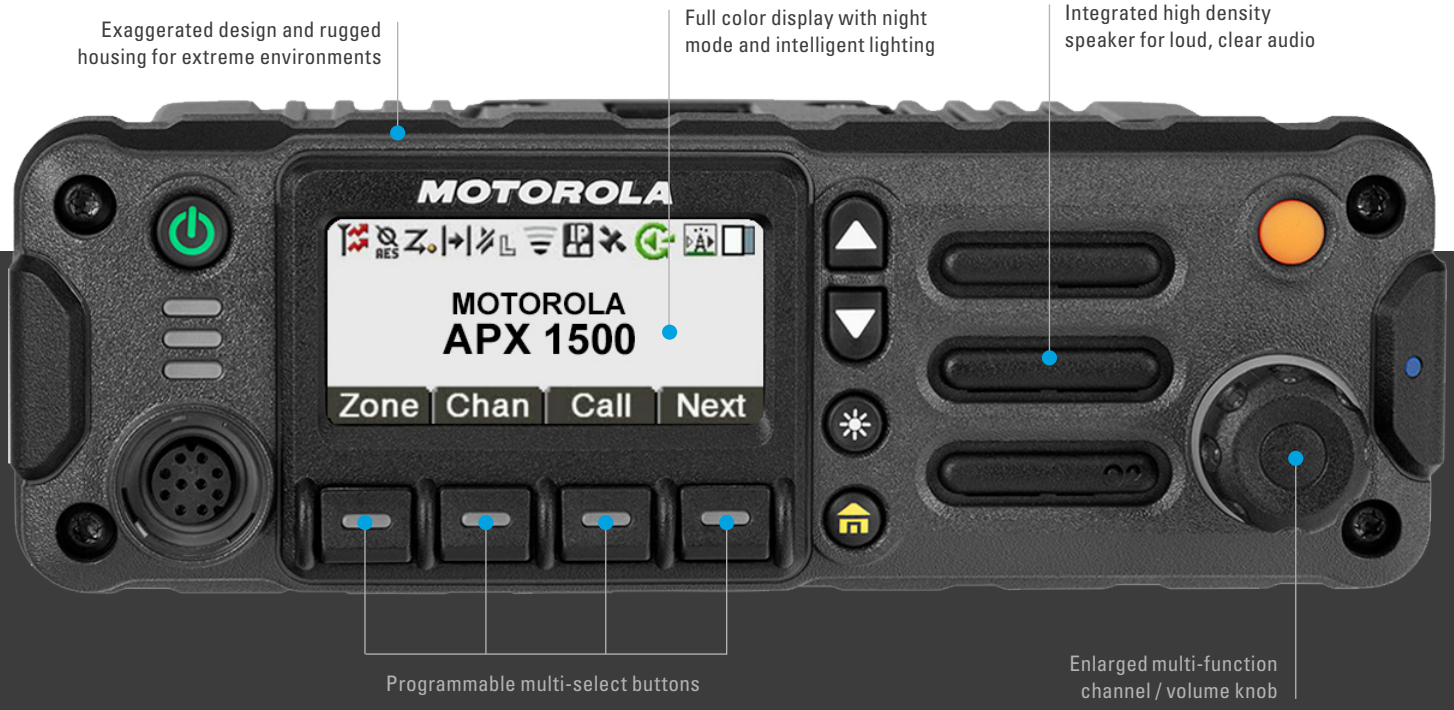
Motorola Solutions offers three levels of service plans – Essential, Advanced and Premier. From simple support for technical troubleshooting to a complete transfer of optimization and maintenance services to Motorola Solutions, you choose the level of support that suits you best.

APX 1500 CONTROL HEAD

O2 CONTROL HEAD

EXTREME USABILITY

The O2 control head provides rugged simplicity for efficient and confident communication. Oversized controls with an easy to read color display and a built-in 7.5 watt speaker provides clear visual and audible user experiences.



FEATURES

GENERAL FEATURES	
Channel Capacity	512 channels
Wireless Connectivity	GPS/GLONASS
Digital Encryption	256-bit AES SW, ADP, Programmable for 8 Common Key Reference

OPERATING MODES
Digital Trunking: 9600 Baud APCO P25 Phase 1 FDMA and Phase 2 TDMA
Digital Conventional: APCO 25

DATA CONNECTIVITY
ASTRO 25 Integrated Voice and Data
Enhanced Data[1]
Integrated GPS/GLONASS for Outdoor Location Tracking
Mission Critical Geofence[1]

MANAGEMENT
Customer Programming Software (CPS)
Radio Management
Over-the-air Programming (OTAP)[1]

SECURITY
P25 Authentication
Software Key
Single-key ADP Encryption[1]
Multikey for 8 keys

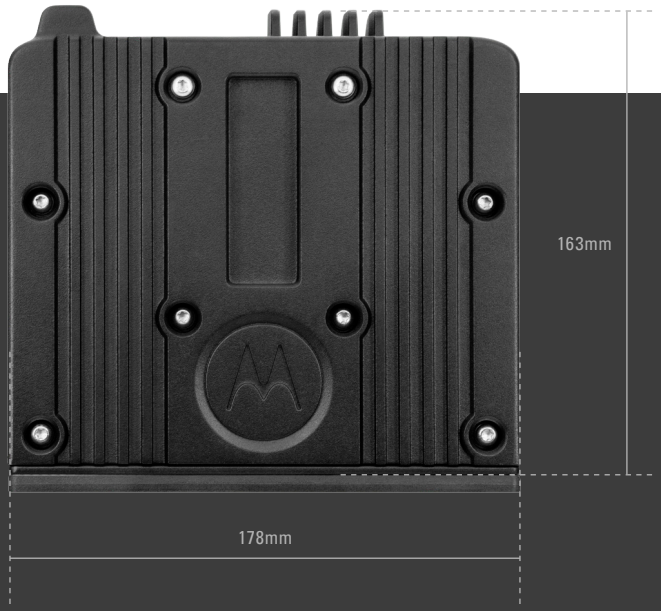
GPS/GNSS SPECIFICATIONS	
Channels	12
Tracking Sensitivity	-164 dBm
Accuracy[2]	<5 meters (95%)
Cold Start[2]	<60 seconds (95%)
Hot Start[2]	<5 seconds (95%)
Mode of Operation	Autonomous (Non-Assisted) GNSS or SBAS

[1] Optional [2] Measured conductively with >6 satellites visible at a nominal -130 dBm signal strength

OTHER FEATURES
Text Messaging[1]
Radio Profiles
Dynamic Zone
Intelligent Priority Scan
Unified Call List
Instant Recall
12 Character RFID Asset Tracking[1]
Digital Tone Signaling[1]

SIGNALING (ASTRO 25 MODE)	
Signalling Rate	9.6 kbps
Digital ID Capacity	10,000,000 Conventional / 48,000 Trunking
Digital Network Access Codes	4,096 network site addresses
ASTRO Digital User Group Addresses	4,096 network site addresses
Project 25 – CAI Digital User Group Addresses	65,000 Conventional / 4,094 Trunking
Error Correction Techniques	Golay, BCH, Reed-Solomon codes
Data Access Control	Slotted CSMA: Utilizes infrastructure-sourced data status bits embedded in both voice and data transmissions

DIMENSIONS AND WEIGHT		
Radio Transceiver	51 x 178 x 163 mm (2.0 x 7.0 x 6.4 in)	2.18 kg (4.80 lbs)
Radio Transceiver and O2 Control Head - Dash Mount	69 x 207 x 223 mm (2.7 x 8.1 x 8.8 in)	2.43 kg (5.36 lbs)



[1] Optional

PERFORMANCE AND REGULATORY

TRANSMITTER								
	VHF		UHF R1		700 MHz		800 MHz	
Frequency Range/Bandsplits	136-174 MHz		380-470 MHz		764-776, 794-806 MHz		806-825, 851-870 MHz	
Rated RF Output Power (Adjustable)	1-50 W		1-40 W		3-30 W		3-35 W	
Frequency Stability (-30°C to +60°C; +25°C Ref.)	±0.8 PPM		±0.8 PPM		±0.8 PPM		±0.8 PPM	
Emissions	Conducted -85 dBc	Radiated -20 dBm	Conducted -85 dBc	Radiated -20 dBm	Conducted -75/-85 dBc	Radiated -20/-40 dBm	Conducted -75 dBc	Radiated -20 dBm
Modulation Limiting (12.5 kHz / 20 kHz / 25 kHz)	±5/±2.5 kHz		±5/±2.5kHz		±5/±2.5 kHz		±5/±2.5 kHz	
Modulation Fidelity (C4FM) 12.5 kHz Digital Channel	2.5%		1.50%		1.50%		1.50%	
Audio Response	+1, -3 dB (EIA)		+1, -3 dB (EIA)		+1, -3 dB (EIA)		+1, -3 dB (EIA)	
FM Hum & Noise (12.5 kHz / 25 kHz)	-52 dB / -53 dB		-50 dB/ -53 dB		-48 dB / -50 dB		-48 dB / -50 dB	
Audio Distortion (12.5 kHz / 25 kHz)	0.50%		0.50%		0.50% / 0.50%		0.50% / 0.50%	

RECEIVER								
	VHF		UHF R1		700 MHz		800 MHz	
Frequency Range/Bandsplits	136-174 MHz		380-470 MHz		764-776 MHz		851-870 MHz	
Channel Spacing	12.5/25 kHz		12.5/25 kHz		12.5/25 kHz		12.5/25 kHz	
Maximum Frequency Separation	Full Bandsplit		Full Bandsplit		Full Bandsplit		Full Bandsplit	
Audio Output Power at Rated/Max	7.5/15 W		7.5/15 W		7.5/15 W		7.5/15 W	
Frequency Stability (-30°C to +60°C; +25°C Ref.)	±0.8ppm		±0.8ppm		±0.8 ppm		±0.8 ppm	
Analog Sensitivity (12 dB SINAD)	Pre-Amp -123 dBm (0.158 µV)	Standard -119 dBm (0.251 µV)	Pre-Amp -123 dBm (0.158 µV)	Standard -119 dBm (0.251 µV)	-121 dB (0.211 µV)		-121 dB (0.199 µV)	
5% BER	Pre-Amp -123 dBm (0.158 µV)	Standard -119 dBm (0.251 µV)	Pre-Amp -123 dBm (0.158 µV)	Standard -119 dBm (0.251 µV)	-121.5 dB (0.188 µV)		-121.5 dB (0.188 µV)	
Selectivity (12.5 kHz / 25 kHz / 30 kHz)	77 dB / 89 dB / 90 dB		72 dB / 83 dB / -		75 dB / 85 dB / -		75 dB / 85 dB / -	
Intermodulation Rejection (12.5 kHz / 25 kHz)	Pre-Amp 84 dB / 84 dB	Standard 86 dB / 86 dB	Pre-Amp 82 dB / 82 dB	Standard 86 dB / 86 dB	82 dB / 82 dB		82 dB / 82 dB	
Spurious Rejection	95 dB		93 dB		91 dB		91 dB	
FM Hum & Noise (12.5 kHz / 25 kHz)	-50 dB / -59 dB		-50 dB / -55 dB		-50 dB / -59 dB		-50 dB / -59 dB	
Audio Distortion (12.5 kHz / 25 kHz)	1.20%		1.50%		1.20%		1.20%	

POWER AND BATTERY DRAIN			
	VHF	UHF R1	700/800 MHz
Model Type	136-174 MHz	380-470 MHz	764-870 MHz
Minimum RF Power Output	1-50 W	1-40 W	3-30 W (764-776 MHz) 3-30 W (794-806 MHz) 3-35 W (806-824 MHz) 3-35 W (851-870 MHz)
Operation	13.8V DC ±20% Negative Ground	13.8V DC ±20% Negative Ground	13.9V DC ±20% Negative Ground
Standby at 13.8 V	0.85A	0.85A	0.85A (764-870 MHz)
Receive Current at Rated Audio at 13.8 V	3.2A	3.2A	3.2A (764-870 MHz)
Transmit Current (A) at Rated Power	13A (50 W) 8A (15 W)	11A (40 W) 8A (15 W)	12A (35W) 8A (15 W)

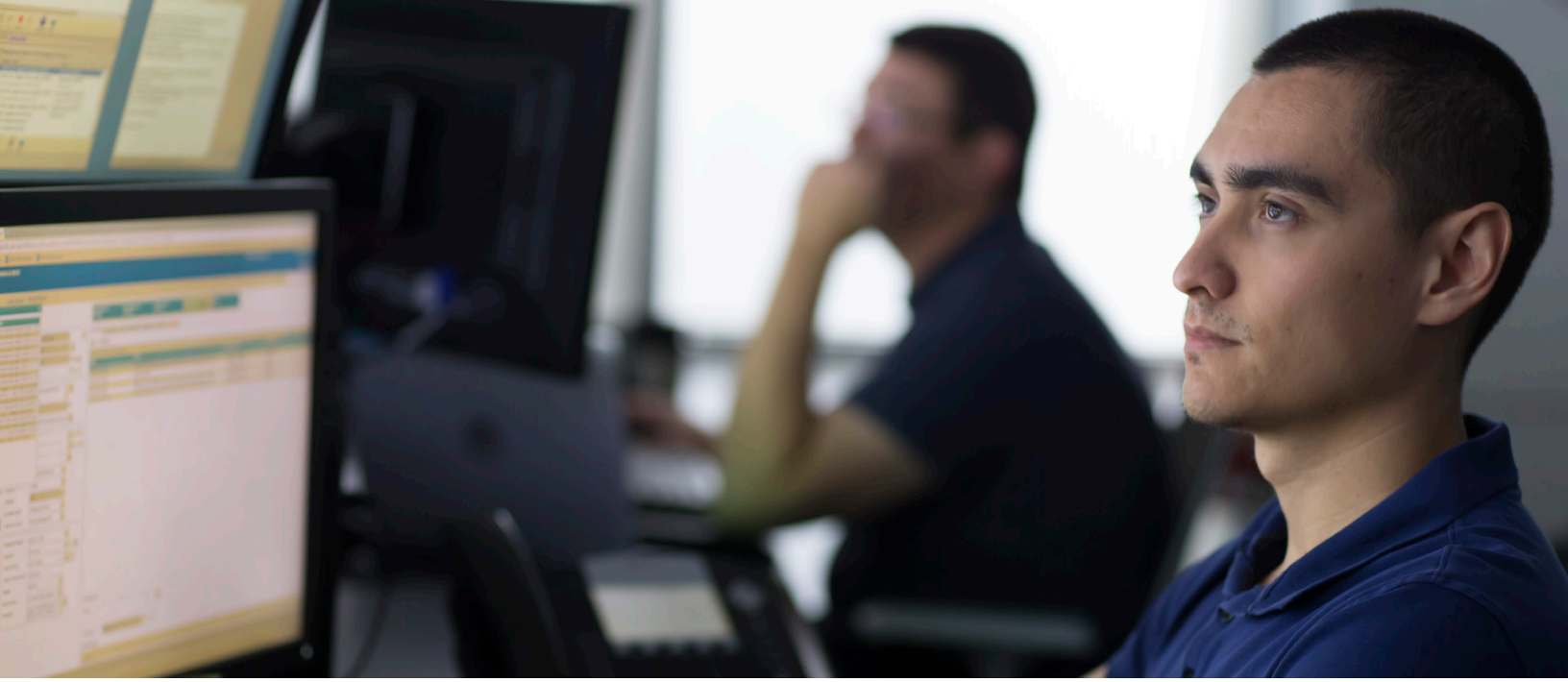
ENVIRONMENTAL	
Operating Temperature	-30°C/+60°C
Storage Temperature	-40°C/+85°C
Humidity	Per MIL-STD
ESD	IEC 61000-4-2
Water and Dust Intrusion	IP56, MIL-STD

RADIO MODEL NUMBER	
VHF	M36KSS9PW1BN
UHF R1	M36QSS9PW1BN
700/800 MHz	M36URS9PW1BN

FCC/IC TYPE ACCEPTANCE ID	
FCC/IC ID	**Band and Power Level**
FCC ID: AZ492FT7130 IC ID: 109U-92FT7130	136-174 MHz (1-50 W)
FCC ID: AZ492FT7129 IC ID: 109U-92FT7129	380-470 MHz (1-40 W)
FCC ID: AZ492FT7124 IC ID: 109U-92FT7124	764-776 MHz (3-30 W)
	794-806 MHz (3-30 W)
	806-824 MHz (3-35 W)
	851-870 MHz (3-35 W)

MOBILE MILITARY STANDARDS 810, C, D, E, F, G & H

	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F		MIL-STD 810G		MIL-STD 810H	
	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	I/II	500.6	II	500.6	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot	501.6	I/A1, II/A1	501.7	I/A1, II/A1
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.6	I/C3, II/C1	502.7	I/C3, II/C1
Temperature Shock	503.1	I	503.2	1/A1C3	503.3	1/A1C3	503.4	I	503.6	I/C	503.7	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.6	I/A1	505.7	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.6	I, III	506.6	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.6	II/Aggravated	507.6	II/Aggravated
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	-	509.6	-	509.7	-
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.6	I	510.7	I
Blowing Sand	-	-	510.2	II	510.3	II		II	510.6	II	510.7	II
Vibration	514.2	VIII, F, W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.7	I/24	514.8	I/24, II/5
Shock	516.2	I, III, V	516.3	I, V, VI	516.4	I, V, VI	516.5	I, V, VI	516.7	I, V, VI	516.8	I, V, VI



ACHIEVE MISSION CRITICAL PERFORMANCE
WITH MANAGED AND SUPPORT SERVICES

ENSURE CONTINUITY • ENHANCE PRODUCTIVITY • REDUCE RISK

ESSENTIAL
Only Support When You Need It

When the unpredictable happens to your network, Essential Services provide you access to Motorola Solutions Technical Support teams and resources for troubleshooting and maintenance.

ADVANCED
Improve Response and Continuity

Motorola Solutions expert service teams help mitigate downtime and ensure network continuity. Get fast response to network issues by our qualified technicians who analyze and diagnose your network as well as deliver routine maintenance.

PREMIER
Maximize Performance and Reduce Risk

Motorola Solutions Managed Services team helps operate and optimize your mission critical system. With Premier Services, you fully transfer the risk to Motorola Soultions and ensure your system operates at maximum performance levels, allowing your team to keep focus on its primary responsibilities.

For more information, please visit
www.motorolasolutions.com/apx

MOTOROLA SOLUTIONS

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